05IK5–02

# DATA LIST/ACTIVE TEST

## 1. DATA LIST

(a) Connect the intelligent tester II to the DLC3.

(b) Turn the power switch on (IG).

(c) Operate the intelligent tester II according to the steps on the display and select ”DATA LIST”.

| Item | Item Description | Inspection Condition | Reference Value |
|---|---|---|---|
| Torque Sensor 1 Output | Torque sensor 1 output value/ Min.: 0 V, Max.: 5 V | 1. Steering wheel is not turned (without load)<br>2. Turning steering wheel to right with vehicle stopped<br>3. Turning steering wheel to left with vehicle stopped | 1. 2.3 to 2.7 V<br>2. 2.5 to 4.7 V<br>3. 0.3 to 2.5 V |
| Torque Sensor 2 Output | Torque sensor 2 output value/ Min.: 0 V, Max.: 5 V | 1. Steering wheel is not turned (without load)<br>2. Turning steering wheel to right with vehicle stopped<br>3. Turning steering wheel to left with vehicle stopped | 1. 2.3 to 2.7 V<br>2. 2.5 to 4.7 V<br>3. 0.3 to 2.5 V |
| Torque Sensor 3 Output | Torque value for assist control/ Min.: 0 V, Max.: 5 V | 1. Steering wheel is not turned (without load)<br>2. Turning steering wheel to right with vehicle stopped<br>3. Turning steering wheel to left with vehicle stopped | 1. 2.3 to 2.7 V<br>2. 2.5 to 4.7 V<br>3. 0.3 to 2.5 V |
| Meter Vehicle Velocity | Vehicle speed from meter/ Min.: 0 km/h, Max.: 255 km/h | 1. Vehicle is stopped<br>2. Vehicle is driven at a constant speed | 1. 0 km/h<br>2. No significant fluctuation |
| Motor Actual Current | Amount of current to motor/ Min.: –128 A, Max.: 127 A | – | – |
| Command Value Current | Demanded amount of current to motor/ Min.: –128 A, Max.: 127 A | – | – |
| Thermistor Temperature | ECU substrate temperature/ Min.: –50 °C, Max.: 205 °C | Power switch is on (IG) | – |
| PIG Power Supply | Power source voltage to activate motor/ Min.: 0 V, Max.: 25.5 V | Power steering is in operation | 10 to 16 V |
| IG Power Supply | ECU power source voltage/ Min.: 0 V, Max.: 25.5 V | – | 10 to 16 V |
| TRQ1 Zero Point Value | Zero point value of torque sensor 1/ Min.: 0 V, Max.: 5 V | Steering wheel is not turned (without load) | 2.3 to 2.7 V |
| TRQ2 Zero Point Value | Zero point value of torque sensor 2/ Min.: 0 V, Max.: 5 V | Steering wheel is not turned (without load) | 2.3 to 2.7 V |
| TRQ3 Zero Point Value | Zero point value of torque sensor for assist control/ Min.: 0 V, Max.: 5 V | Steering wheel is not turned (without load) | 2.3 to 2.7 V |
| Motor Terminal Volt(+) | Motor terminal M1 voltage/ Min.: 0 V, Max.: 25.5 V | 1. Turning steering wheel to right<br>2. Turning steering wheel to left | 1. 10 to 16 V<br>2. Below 1 V |
| Motor Terminal Volt(–) | Motor terminal M2 voltage/ Min.: 0 V, Max.: 25.5 V | 1. Turning steering wheel to right<br>2. Turning steering wheel to left | 1. Below 1 V<br>2. 10 to 16 V |
| Motor Overheat Record | Continuous overheat prevention control record/ REC/UNREC | – | – |

| Item | Item Description | Inspection Condition | Reference Value |
|---|---|---|---|
| Motor Lo Power Record | PIG power source voltage drop record/ REC/UNREC | – | – |
| Control Mode | Codes indicating DTC detection timing during ECU control are displayed in hexadecimal | – | – |
| IG ON/OFF Times | Number of times power switch is turned on (IG) after DTC detection/ Min.: 0 time, Max.: 255 times | – | – |
| Number of Trouble Code | Number of detected DTCs when freeze frame data is stored/ Min.: 0 time, Max.: 255 times | – | – |
| Assist Map Select State | Selected assist map | – | – |
| ECU Identification | ECU identification information | – | – |
| Test Mode Status | Selected mode/ NORMAL MODE/TEST MODE | – | – |
| Ready Status | HV system ”READY”/ OFF/ON | HV system ”READY” ⇔ Not ”READY” | ON ⇔ OFF |